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**SCS ENGINEERS**

## **Results of the 4<sup>th</sup> Quarter 2005 Groundwater Monitoring and Sampling Event**

**Former A-1 Rentals  
458 West College Avenue  
Santa Rosa, California  
(Assessor's Parcel No. 010-441-011)  
(NCRWQCB Case No. 1TSR364)**

**File Number 01203354.00**

**Prepared by:**

**SCS Engineers  
3645 Westwind Boulevard  
Santa Rosa, California 95403**

**To:**

**Mr. Jim Tischler  
North Coast Regional Water Quality Control Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa, California 95403**

**January 10, 2006**

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**Mr. Jim Tischler**  
**January 10, 2006**  
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#### **LIMITATIONS/DISCLAIMER**

This report has been prepared for the Former A-1 Rentals site with specific application to a quarterly monitoring event for the property located at 458 West College Avenue, Santa Rosa, California. Field activities and sampling were conducted in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented herein.

Access to the property and the surrounding area was and is limited by buildings, roadways, underground and above-ground utilities and other miscellaneous site and site vicinity features. Therefore, the field exploration and points of subsurface observation were and are somewhat restricted.

Changes in site use and conditions may occur due to variations in rainfall, temperature, water usage, or other factors. Additional information which was not available to the consultant at the time of this quarterly monitoring event or changes which may occur on the site or in the surrounding area may result in modification to the site that would impact the summary presented herein. This report is not a legal opinion.

We trust this report provides the information you require at this time. If you require any additional information or have any questions, please do not hesitate to contact SCS at (707) 546-9461.

*LLC*

Kevin L. Coker REA 7887  
CA registration fees paid through 06/30/06

*H106*

Date



*Stephen Knuttel*

Stephen Knuttel PG 7674  
CA registered fees paid through 07/31/07

*11. JAN., 2006*

Date

## **Introduction**

SCS Engineers (SCS) is pleased to present the results of the 4<sup>th</sup> quarter 2005 groundwater monitoring and sampling event conducted at the Former A-1 Rentals site, located at 458 West College Avenue, Santa Rosa, California (Assessors Parcel No. 010-441-011). A summary of historical site investigative activities is presented in previous reports (MP, 1999a, 1999b; PNEG, 2001a; SCS, 2003a, SCS, 2005c). The site is located as shown on the Site Location Map, Figure 1. General site features are as shown on the Site Plans, Figures 2A and 2B.

## **Groundwater Monitoring**

Depth to groundwater measurements were collected from MW-01 through MW-11 on November 9, 2005. Depth to groundwater measurements ranged from approximately 8 to 9 feet below existing ground surface (bgs). The depth to groundwater measurements and well casing elevations were used to calculate groundwater flow direction and gradient. Casing and groundwater elevations are reported in feet relative to mean sea level. Depth to groundwater is expressed in feet. For the 4<sup>th</sup> quarter 2005 monitoring event, the groundwater flow direction was interpolated to be northerly with a calculated gradient of 0.008 (Figure 2, and Table 1).

## **Groundwater Sampling**

SCS previously recommended eliminating wells MW-1, MW-2, and MW-3 from routine sampling at the Site (SCS, 2005c). The North Coast Regional Water Quality Control Board (NCRWQCB) subsequently issued a letter concurring with this recommendation (NCRWQCB, 2005b). These changes are reflected herein.

After depth to groundwater measurements were collected (MW-1 through MW-11) were checked for the presence of free product using an oil/water interface probe and by subjective evidence. No free product was reported during this monitoring event. Each well was then purged using a submersible pump. Temperature, pH, conductivity, turbidity, and dissolved oxygen readings were measured during purging to help demonstrate that fresh groundwater was entering the well casing. Each well was then allowed to recover prior to sampling. Information obtained during sampling was recorded on field sampling forms and Well Purge Records were generated, copies of which are presented in Appendix A. The groundwater samples were obtained using a separate disposable bailer for each well and were transferred to the appropriate containers supplied by the laboratory for analysis. The samples were labeled, stored under refrigerated conditions, and transported under Chain-of-Custody documentation to Analytical Sciences (AS) of Petaluma, California for analysis. AS is a California Department of Health Services certified laboratory for the analyses requested. All samples were collected following Standard Soil and Water Sampling Procedures and QA/QC Protocol. Purge

water generated from well sampling activities is stored at the site in 55-gallon UN/DOT-approved drums, pending disposal.

### **Laboratory Analysis**

The groundwater samples collected from the monitoring wells MW-4 –MW-11 were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) by EPA Method 5030/8015M, and for volatile organic compounds (VOCS), including the five ether-based oxygenates and lead scavengers, by EPA Method 8260B.

### **Groundwater Analytical Results**

The analytical results for MW-04 through MW-11 for the November 9, 2005 sampling event are presented in Table 2, and contoured on the isoconcentration maps, Figures 3 through 6. Groundwater analytical results to date are summarized in Table 2, and plotted on time versus concentration diagrams, Diagrams A through C. A copy of the laboratory analytical report is presented in Appendix B.

### **Discussion and Recommendations**

For the November 9, 2005 sampling event, groundwater samples collected from MW-07 and MW-08 were below the laboratory report detection limit (RDL) for all target analytes. TPH-g was detected in samples collected from MW-04, MW-05, and MW-11 at concentrations ranging from 71 micrograms per liter ( $\mu\text{g/L}$ ) in MW-04 to 870  $\mu\text{g/L}$  in MW-05; MTBE was detected in samples collected from MW-06 and MW-09 at concentrations of 5.4  $\mu\text{g/L}$  and 6.1  $\mu\text{g/L}$ , respectively; additional gasoline-related components were detected in MW-05 and MW-11 at a maximum concentration of 30  $\mu\text{g/L}$  n-propylbenzene in MW-05; and non-gasoline-related components were detected in samples collected from MW-04, MW-05, MW-09, and MW-10 at a maximum concentration of 250  $\mu\text{g/L}$  chlorobenzene in MW-09. As directed by the NCRWQCB (NCRWQCB, 2005b), additional monitoring of the project wells will continue to evaluate constituent trends so that an appropriate remedial approach can be developed. SCS anticipates the preparation of a Feasibility Study/Corrective Action Plan after completion of one full hydrologic cycle of sampling with the recently installed wells (2<sup>nd</sup> quarter 2006) or when sufficient data is present to establish adequate trend with constituents in groundwater.

In the interim, SCS requests the NCRWQCB's concurrence to add analysis for geochemical parameters to the analytical suite at the Site to evaluate whether or not natural attenuation may be a viable remedial alternative for this Site. This analysis would continue for one complete hydrologic cycle, at which time the natural attenuation parameters could potentially be reduced based on the dominant electron acceptors and metabolic by-products which are identified. Additionally, the number of monitoring wells for which the natural attenuation parameters would be analyzed could

be reduced.

SCS hereby proposes to add analysis for the geochemical parameters to wells MW-01 (up-gradient); to MW-04, MW-05, and MW-06 (within the groundwater plume), and to MW-07, MW-08, and MW-09 (down-gradient of the plume). The following natural attenuation parameters would be added to the analytical suite:

- Dissolved oxygen (DO), Nitrate ( $\text{NO}_3^{-1}$ ), Ferrous Iron ( $\text{Fe}^{+2}$ ), Sulfate ( $\text{SO}_4^{-2}$ ), Methane, Oxidation Reduction Potential (ORP), total alkalinity, temperature, and pH. The DO, temperature, and pH measurements would be conducted in the field.

The next quarterly monitoring event at the Site is currently scheduled for February 2006.

**Attachments**  
**File No. 01203354.00**

**Figures**

- Figure 1: Site Location Map  
Figure 2: Site Plan - Groundwater Flow Direction and Gradient for 11/09/05  
Figure 3: Isoconcentration Map – TPH-g in Groundwater for 11/09/05  
Figure 4: Isoconcentration Map – MTBE in Groundwater for 11/09/05  
Figure 5: Isoconcentration Map –  $\Sigma$ Gasoline Components (Excluding BTEX, MTBE) in Groundwater for 11/09/05  
Figure 6: Isoconcentration Map –  $\Sigma$ Non-Gasoline Components in Groundwater for 11/09/05

**Diagrams and Tables**

Key to Diagrams and Tables

- Diagram A: TPH-g & Groundwater Elevation vs. Time  
Diagram B: MTBE & Groundwater Elevation vs. Time  
Diagram C:  $\Sigma$ VOCs (Excluding TPH-g, BTEX, and MTBE) & Groundwater Elevation vs. Time  
Diagram D:  $\Sigma$ Non Gasoline-Related Compounds & Groundwater Elevation vs. Time  
Table 1: Groundwater Flow Direction and Gradient  
Table 2: Groundwater Analytical Results

**Appendices**

- Appendix A: Well Purge Records, 4<sup>th</sup> Quarter 2005  
Appendix B: Analytical Sciences Report #5111003, dated November 28, 2005

**References**  
**File No. 01203354.00**

- Biocca, J., 2001. Telephone conversation between Mr. Biocca and Mr. Gary Johnson of SCS, April 3.
- Malcolm Pirnie, Inc. (MP), 1999a. Phase I Environmental Site Assessment/Limited Compliance Assessment, October 1999.
- MP, 1999b. Limited Phase II Environmental Site Assessment, December 13.
- MRL, 1999. Certification of UST Cleaning and Removal, May 12.
- NCRWQCB, 2000. Work Plan Directive, March 13.
- NCRWQCB, 2004a, Work Plan Directive, January 5.
- NCRWQCB, 2004b. Concurrence with proposed scope of work, September 16.
- NCRWQCB, 2005a. Personal communication between J. Tischler and K. Coker, February 11.
- NCRWQCB, 2005b. Regulatory letter from J. Tischler to J. Biocca re: reduced monitoring program, August 24.
- PNEG, 2000a. Untitled Document, 458 West College Avenue, Santa Rosa, California, January, 24.
- PNEG, 2000b. Work Plan for Soil and Groundwater Investigation at A-1 Rentals, 458 West College Avenue, Santa Rosa, California, May 11.
- PNEG, 2001a. Report on Soil and Groundwater Investigation at A-1 Rentals, 458 West College Avenue, Santa Rosa, California, April, 11.
- PNEG, 2001b. Work Plan for Additional Soil and Groundwater Investigation at A-1 Rentals, 458 West College Avenue, Santa Rosa, California, August, 29.
- PNEG, 2001c. Revised Work Plan for Additional Soil and Groundwater Investigation at A-1 Rentals, 458 West College Avenue, Santa Rosa, California, November, 19.
- SCS, 2003a. Results of Additional Soil and Groundwater Investigation at Nations Rents, 458 West College Avenue, Santa Rosa, California, November 13.
- SCS, 2003b. Results of the 4<sup>th</sup> Quarter 2003 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, December 24.
- SCS, 2004a. Work Plan for Additional Subsurface Investigation, Nations Rents, 458 West College Avenue, Santa Rosa, California, February 26.
- SCS, 2004b. Results of the 1<sup>st</sup> Quarter 2004 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, April 1.
- SCS, 2004c. Response to NCRWQCB verbal comments regarding modifications of the May 3, 2004 Work Plan for Additional Subsurface Investigation, Nations Rent Site, 458 West College Avenue, Santa Rosa, California, May 12.
- SCS, 2004d. Response to NCRWQCB verbal comments regarding modifications of the May 3, 2004 Work Plan for Additional Subsurface Investigation, Nations Rent Site, 458 West College Avenue, Santa Rosa, California, June 21.
- SCS, 2004e. Results of the 2<sup>nd</sup> Quarter 2004 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, September 1.
- SCS, 2004f. Work Plan Addendum, Nations Rents, 458 West College Avenue, Santa Rosa, California, September 21.
- SCS, 2004g. Results of the 3<sup>rd</sup> Quarter 2004 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, November 16.

**Mr. Jim Tischler**

**January 10, 2006**

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- SCS, 2005a. Results of the 4<sup>th</sup> Quarter 2004 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, March 22.
- SCS, 2005b. Results of Additional Subsurface Investigation and 2<sup>nd</sup> Quarter 2005 Groundwater Monitoring and Sampling Event – Former A-1 Rentals, 458 West College Avenue, Santa Rosa, California, July 29.
- SCS, 2005d. Results of the 3<sup>rd</sup> Quarter 2005 Groundwater Monitoring and Sampling Event at Nations Rents, 458 West College Avenue, Santa Rosa, California, November 7.
- SRFD, 1986. UST removal permit applications for one 350-gallon 2-cycle fuel UST, one 1,000-gallon diesel UST, one 1,000-gallon gasoline UST.
- SRFD, 1993. Confirmation of removal of 6,000-gallon gasoline UST in 1986.
- Wheeler, A., 2001. Telephone conversation between Mr. Anthony Wheeler and Gary Johnson of SCS, December 27.

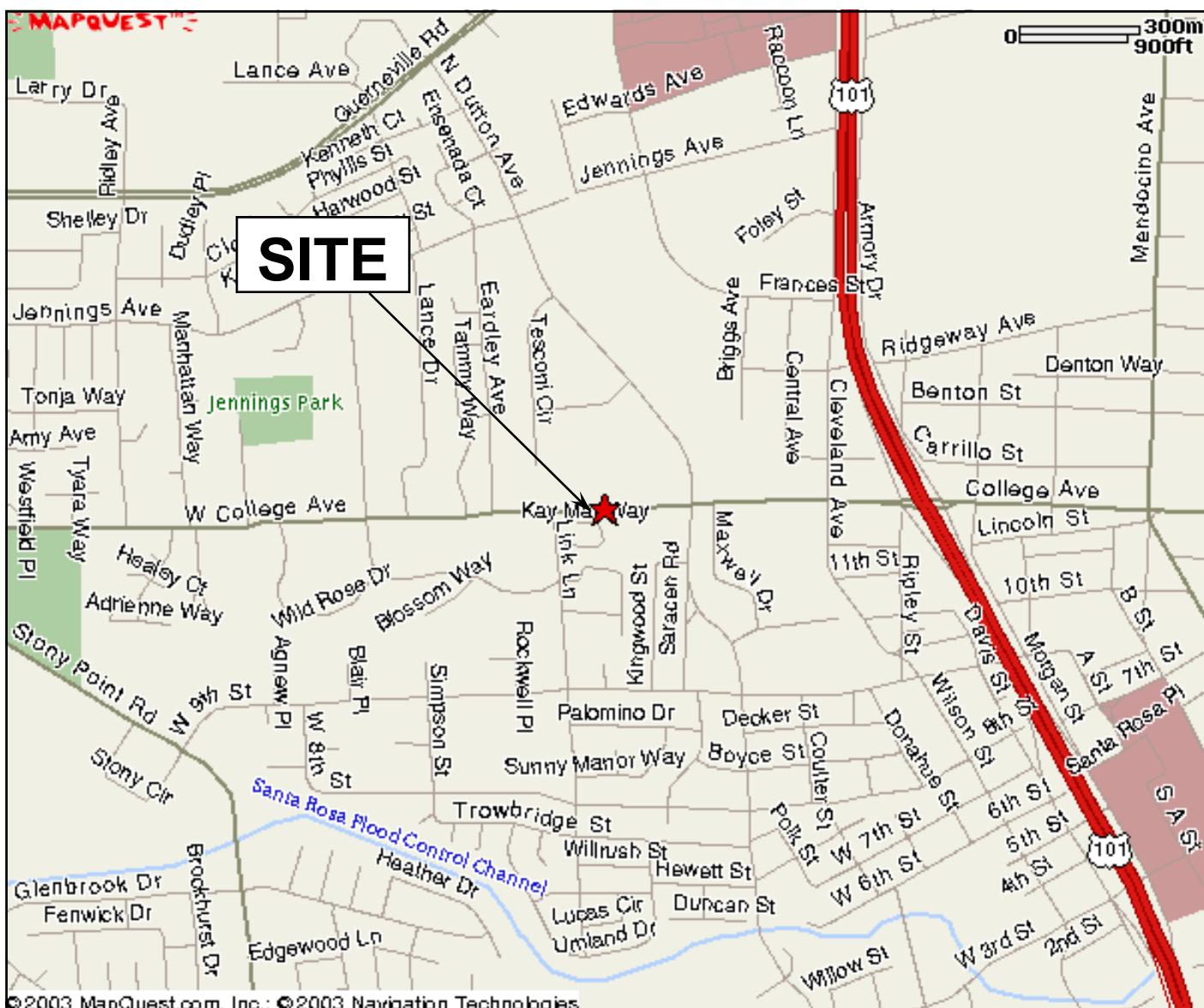
**Distribution List  
File No. 01203354.00**

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703 2<sup>nd</sup> Street, 4<sup>th</sup> Floor  
Santa Rosa, California 95404

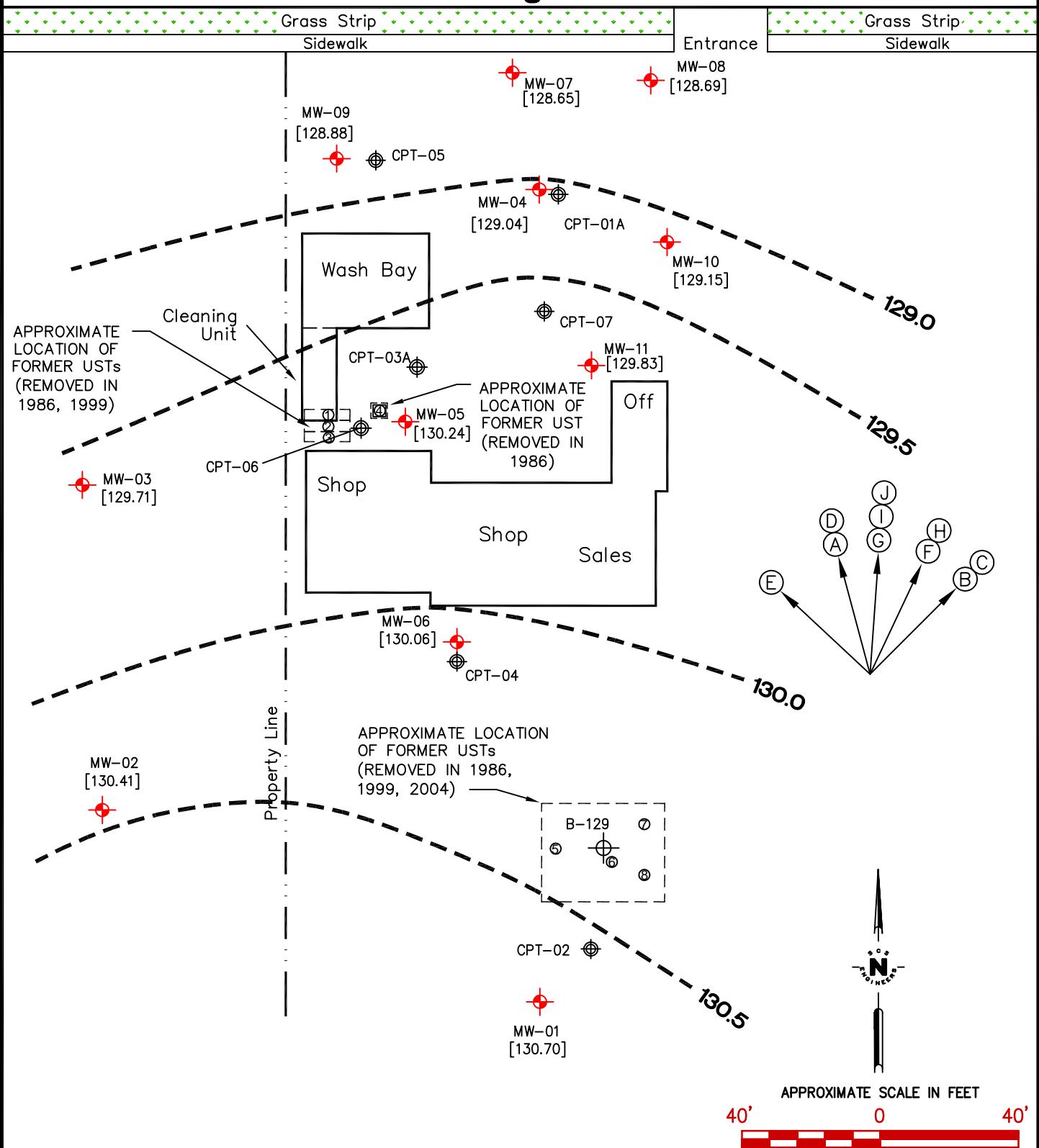
## **Figures**



<b>SCS ENGINEERS</b>		
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PROJ. NO:	01203354.00	TAKEN BY:
DATE:	11/13/03	FILE: SiteLocMap
CREATED BY:		APP. BY:

<b>SITE LOCATION MAP</b>		APPROX. SCALE 0 FT 900 FT
FORMER A-1 RENTALS 458 WEST COLLEGE AVE. SANTA ROSA, CA		
		FIGURE 1

# College Avenue



SCS ENGINEERS			
ENVIRONMENTAL CONSULTANTS			
3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA 95403 PH. (707) 546-9461 FAX. (707) 544-5769			
PROJ. NO.: 3354.00	DWY. BY: AJH	ACAD FILE: 3354.00-GW.J-3549	
DATE: 12/14/05	CHK. BY:	APP. BY: SK	

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PROJECT TITLE: FORMER A-1 RENTALS 458 W. COLLEGE AVENUE SANTA ROSA, CALIFORNIA	FIGURE NO.: 2 1 OF 2

## **GROUNDWATER FLOW LEGEND**

MW-1 Monitoring Well Location  
[XX.XX] Groundwater Elevation

NOTE: Ground water elevations are in feet above mean sea level (National Geodetic Vertical Datum, 1929).

 BORING LOCATION

 Cone Penetrometer Test  
Boring (CPT) Location

- ① ONE FORMER 1,000 GALLON GAS UST,  
REMOVED BY GENE FISH; 1986.
  - ② ONE FORMER 1,000 GALLON DIESEL  
UST, REMOVED BY GENE FISH; 1986.
  - ③ ONE FORMER 1,0000 GALLON GAS UST,  
REMOVED BY JIM BIOCCHA; 1999.
  - ④ ONE FORMER 350 GALLON 2 CYCLE FUEL  
UST, REMOVED BY GENE FISH; 1986.
  - ⑤ ONE FORMER 6,000 GALLON GAS UST,  
REMOVED BY GENE FISH; 1986.
  - ⑥ ONE FORMER 350 GALLON WASTE/OIL  
UST, REMOVED BY JIM BIOCCHA; 1999.
  - ⑦ ONE FORMER 10,000 GALLON GAS UST,  
REMOVED BY NATIONS RENTS; 2004.
  - ⑧ ONE FORMER 10,000 GALLON DIESEL UST,  
REMOVED BY NATIONS RENTS; 2004.

APPROXIMATE TANK LOCATIONS BASED ON  
HISTORICAL DATA; PHASE ONE ENVIRONMENTAL  
SITE ASSESSMENT, MALCOLM PIRNIE, INC 10/1999.  
LIMITED PHASE TWO ENVIRONMENTAL SITE  
ASSESSMENT, MALCOLM PIRNIE, INC 12/1999

SCS ENGINEERS

## ENVIRONMENTAL CONSULTANTS

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PROJ. NO.:	DWN. BY:	ACAD FILE:
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12/14/05		SK

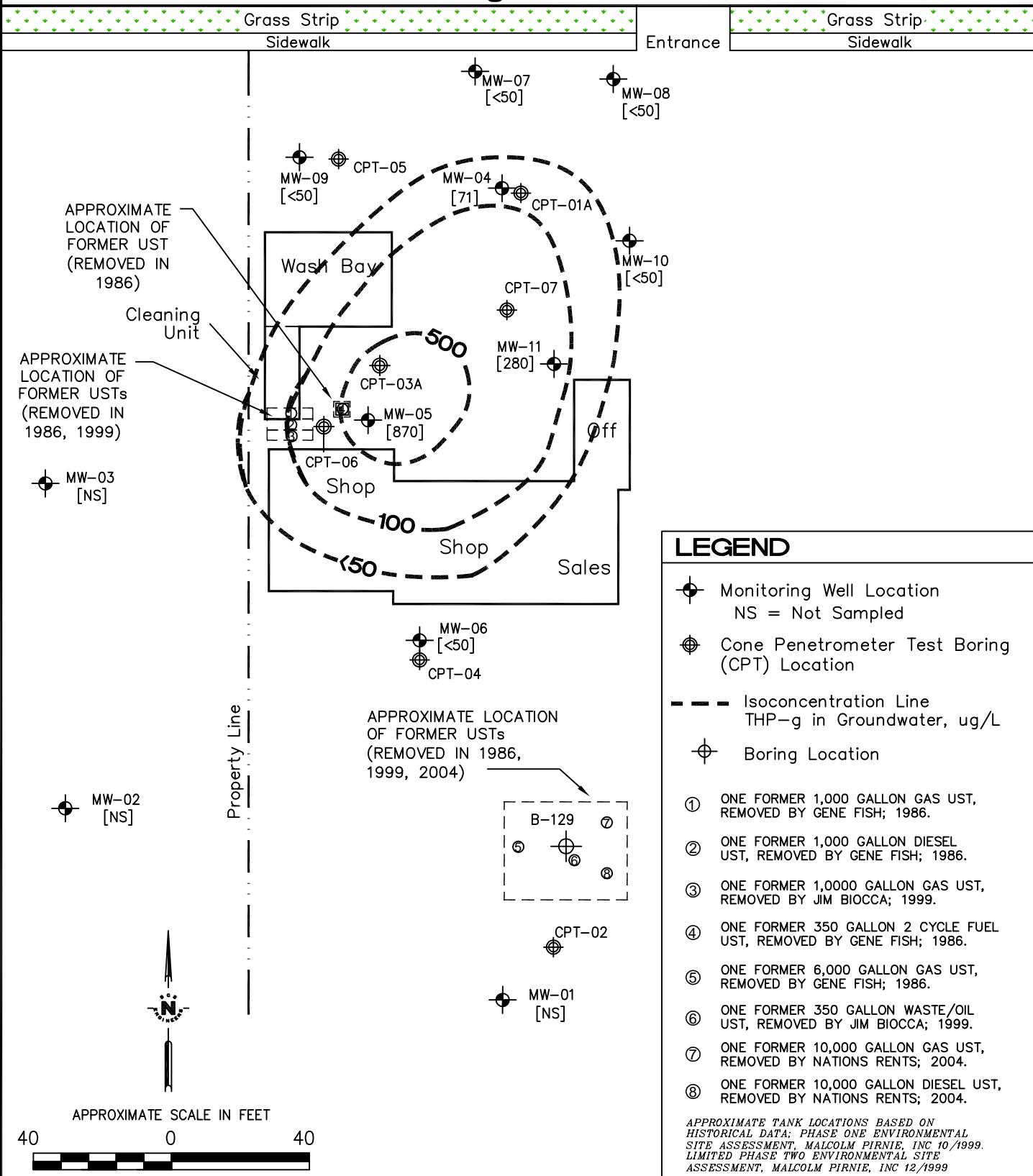
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GROUNDWATER FLOW DIRECTION AND GRADIENT FOR 11/9/05

PROJECT TITLE: FORMER A-1 RENTALS  
458 W. COLLEGE AVENUE  
SANTA ROSA, CALIFORNIA

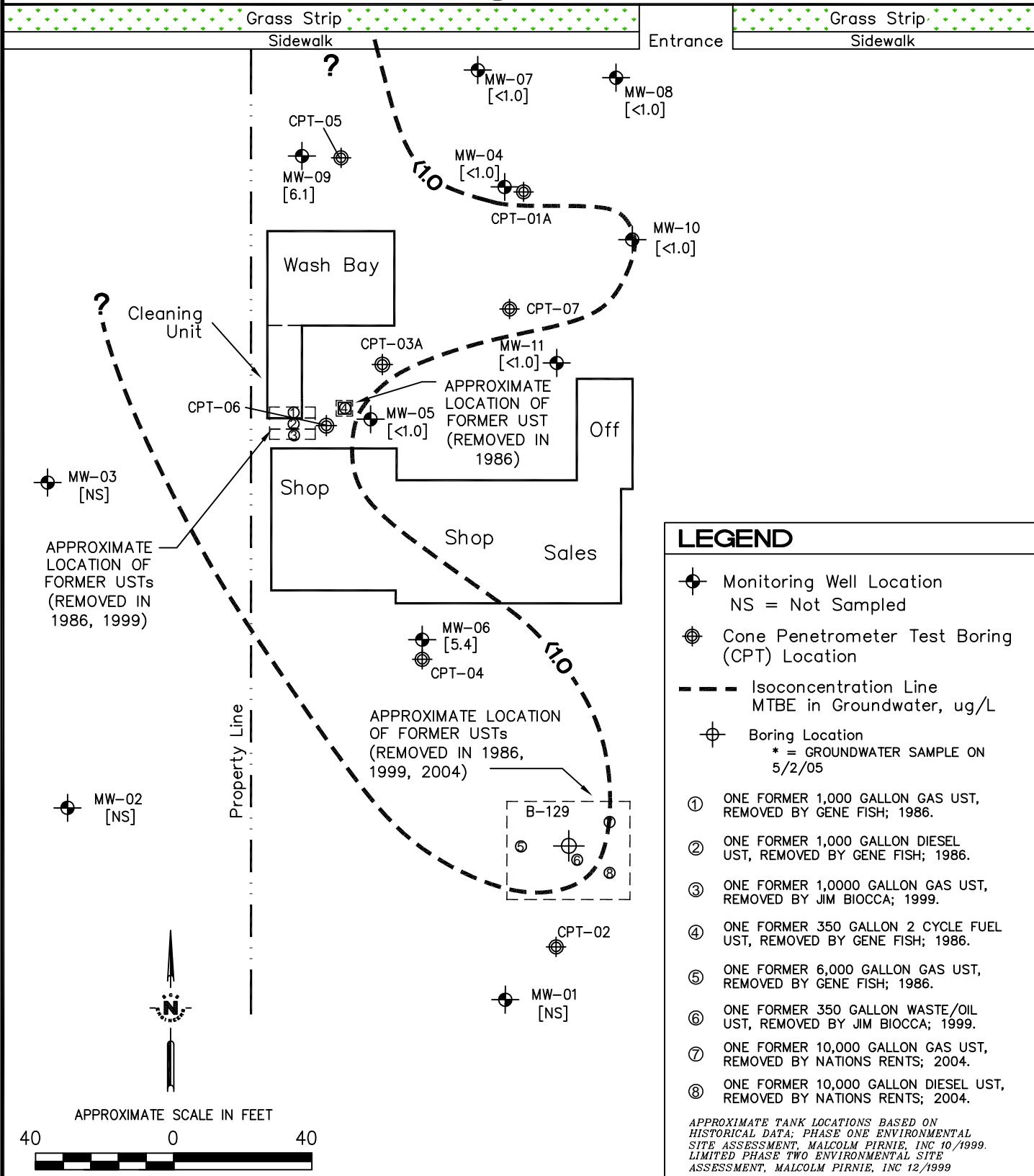
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FIGURE NO.:  
2  
2 OF 2

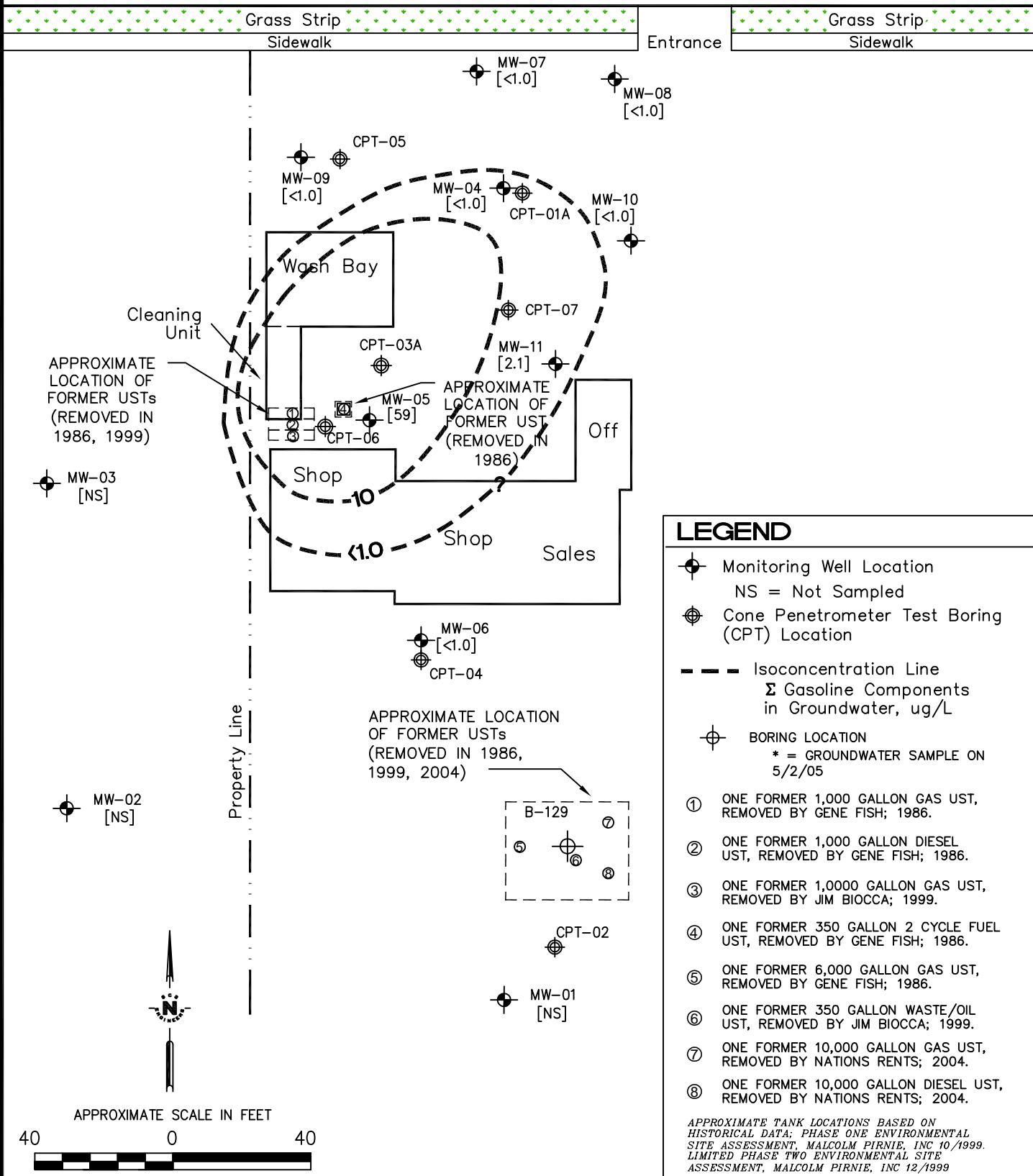
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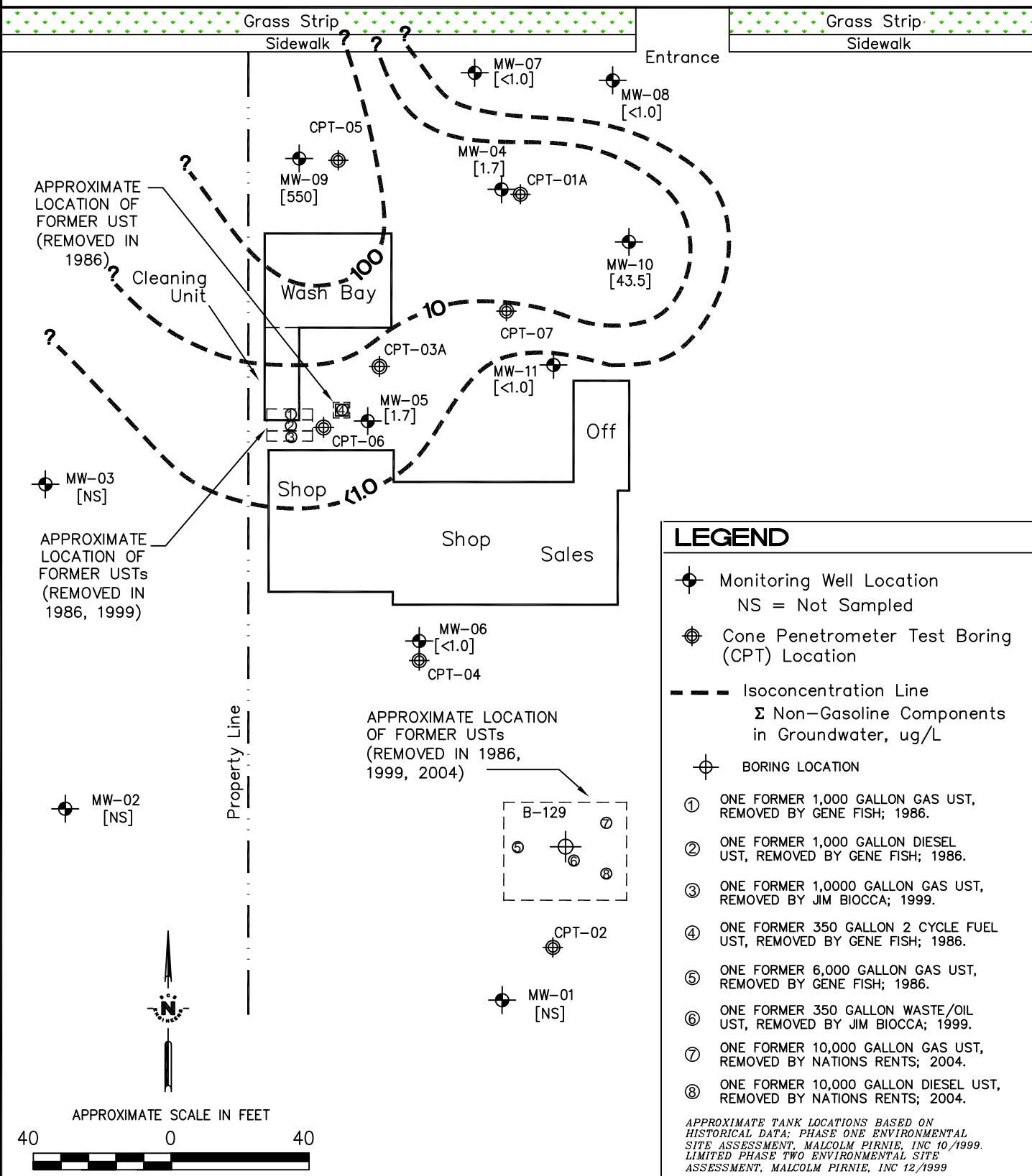
# College Avenue



# College Avenue



# College Avenue



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3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA 95403 PH. (707) 546-9461 FAX. (707) 544-5769			
PROJ. NO.: 3354.00 DWN. BY: AJH ACAD FILE: 3354.00-IS06-3549 DATE: 12/14/05 CHK. BY: APP. BY: SK			

SHEET TITLE: $\Sigma$ NON-GASOLINE COMPONENTS IN GROUNDWATER FOR 11/9/05	SCALE: 1" = 40'
PROJECT TITLE: FORMER A1 RENTALS 458 W. COLLEGE AVENUE SANTA ROSA, CALIFORNIA	FIGURE NO.: 6

## **Diagrams and Tables**

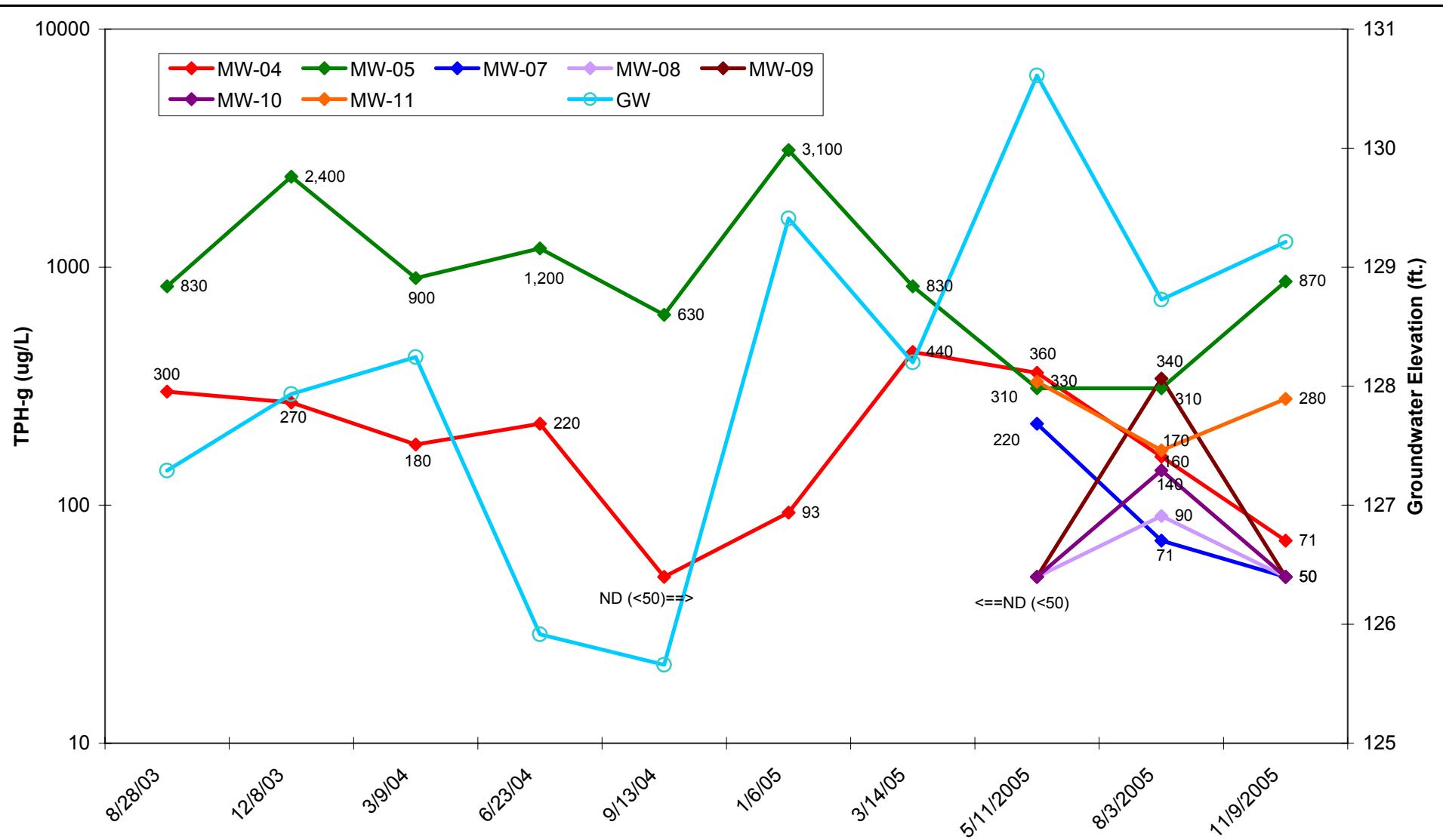
**Key to Diagrams and Tables**  
**458 West College Avenue, Santa Rosa**

TPH-g	=	Total petroleum hydrocarbons in the gasoline range
TPH-d	=	Total petroleum hydrocarbons in the diesel range
B	=	Benzene
T	=	Toluene
E	=	Ethylbenzene
X	=	Xylenes
MTBE	=	Methyl tertiary butyl ether
DIPE	=	Di-isopropyl ether
ETBE	=	Ethyl tert-butyl ether
TAME	=	Tert amyl-methyl ether
TBA	=	Tert-butyl alcohol
5-Oxys	=	5 oxygenated fuel compounds (MTBE, DIPE, ETBE, TAME, TBA)
VOCs	=	Volatile organic compounds
CB	=	Chlorobezene
HVOCs	=	Halogenated volatile organic compounds
$\mu\text{g/L}$	=	Micrograms per liter
ND	=	Non detect
NA	=	Not analyzed
EDC	=	Ethylene dichloride <sup>2</sup>
EDB	=	Ethylene dibromide <sup>3</sup>

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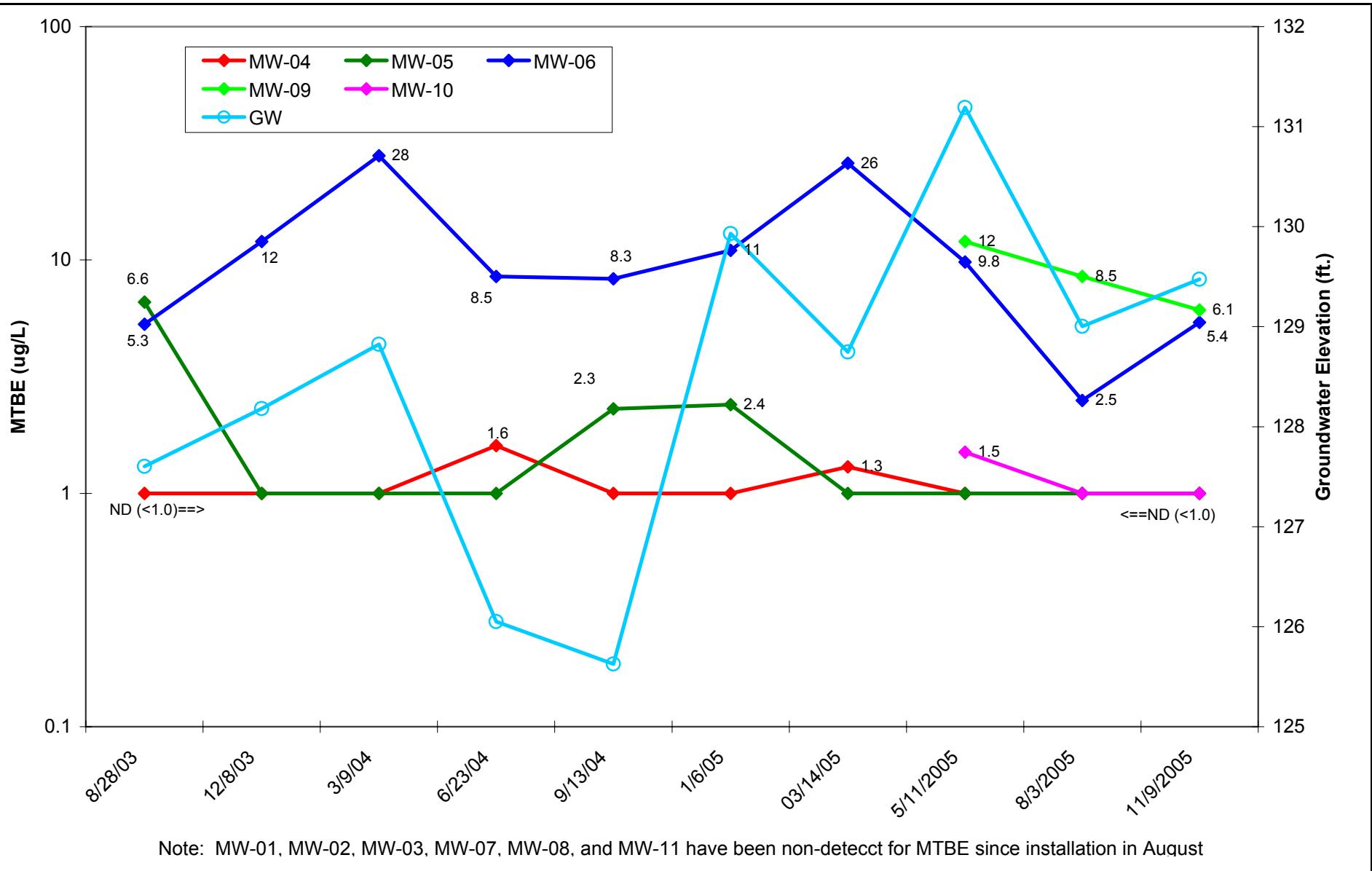
<sup>2</sup> EDC has been referred to as 1,2-dichloroethane (1,2-DCA) in previous reports.

<sup>3</sup> EDB has been referred to as 1,2-dibromoethane (1-2-DBA) in previous reports.

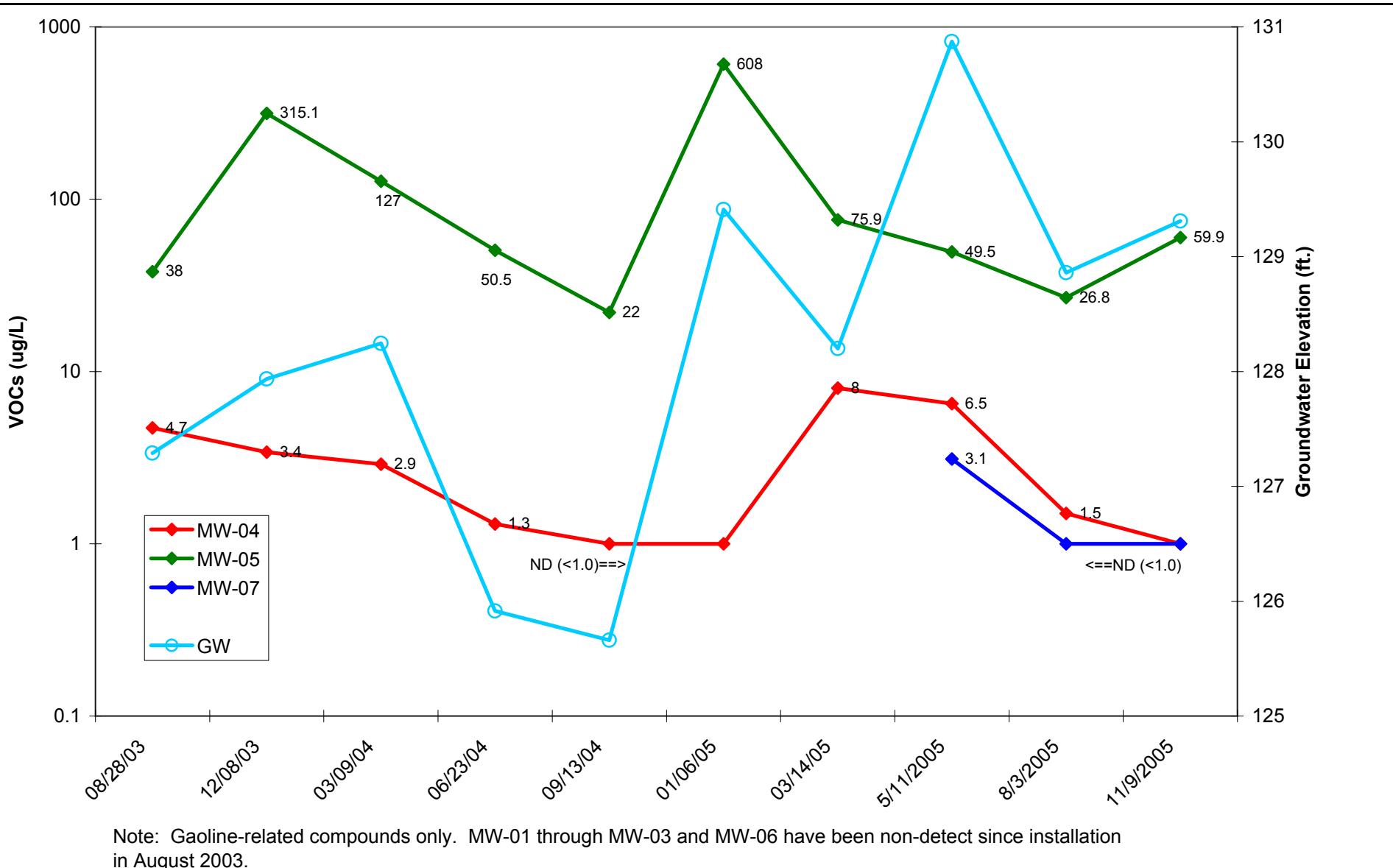


Note: MW-01 through MW-03 and MW-06 have been non-detect for TPH-g since installation in August 2003.

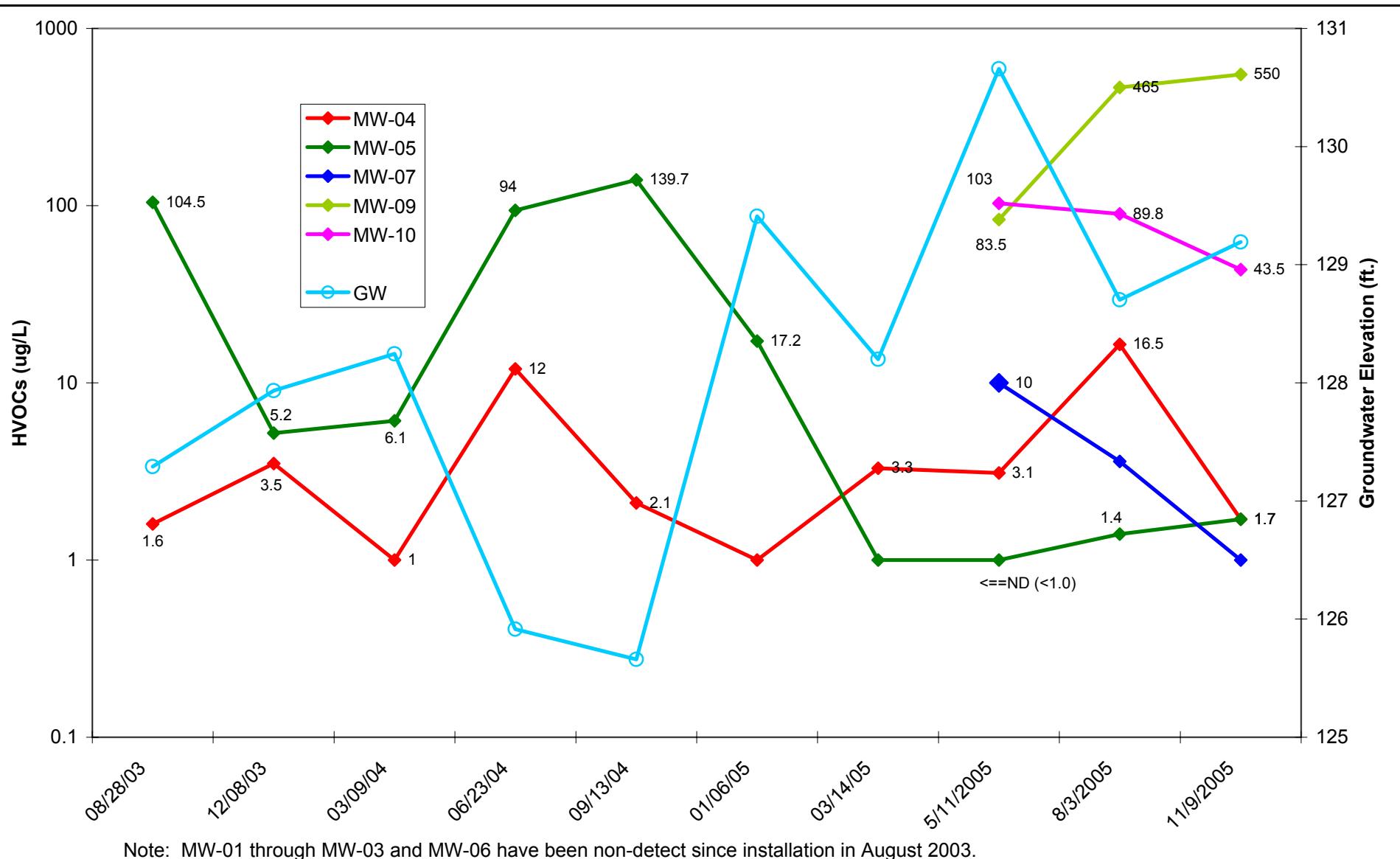
SCS ENGINEERS	TPH-g & GROUNDWATER ELEVATION vs TIME		DIAGRAM
3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA PH: (707) 546-9461 FX: (707)544-5769	Former A-1 Rentals 458 West College Avenue Santa Rosa, California		A
Drawn By: KLC	File Name: TPH-GW	Job Number: 01203354.00	DATE: 12/12/05



SCS ENGINEERS	MTBE & Groundwater Elevation vs Time	DIAGRAM
3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA PH: (707) 546-9461 FX: (707)544-5769	Former A-1 Rentals 458 West College Avenue Santa Rosa, California	B
Drawn By: KLC	File Name: MTBE-GW	DATE: 11/28/05
	Job Number: 01203354.00	



SCS ENGINEERS	$\Sigma\text{VOCs (Excluding TPH-g, BTEX and MTBE) & Groundwater Elevation vs Time}$	DIAGRAM
3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA PH: (707) 546-9461 FX: (707)544-5769	Former A-1 Rentals 458 West College Avenue Santa Rosa, California	C
Drawn By: KLC	File Name: VOCs-GW	Job Number: 01203354.00
		DATE: 12/12/05



SCS ENGINEERS	ΣNon Gasoline-Related Compounds & Groundwater Elevation vs Time	DIAGRAM
3645 WESTWIND BOULEVARD SANTA ROSA, CALIFORNIA PH: (707) 546-9461 FX: (707)544-5769	Former A-1 Rentals 458 West College Avenue Santa Rosa, California	D
Drawn By: KLC	File Name: VOCs-GW	Job Number: 01203354.00
		DATE: 12/12/05

**Table 1: Groundwater Flow Direction and Gradient**  
**458 West College Avenue, Santa Rosa**

Well #	Date	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (ft.)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-01	08/28/03*	135.93	6.33	129.60	Northerly i = 0.01
MW-02		136.19	7.35	128.84	
MW-03		135.62	8.92	126.70	
MW-04		135.10	8.65	126.45	
MW-05		135.23	7.10	128.13	
MW-06		135.37	7.14	128.23	
MW-01	12/08/03	135.93	7.19	128.74	Northwesterly i = 0.01
MW-02		136.19	7.18	129.01	
MW-03		135.62	6.05	129.57	
MW-04		135.10	7.85	127.25	
MW-05		135.23	6.61	128.62	
MW-06		135.37	6.97	128.40	
MW-01	03/09/04	135.93	5.70	130.23	Northeasterly i = 0.02
MW-02		136.19	6.54	129.65	
MW-03		135.62	6.41	129.21	
MW-04		135.10	7.78	127.32	
MW-05		135.23	6.06	129.17	
MW-06		135.37	5.39	129.98	
MW-01	06/23/04	135.93	8.52	127.41	Northerly i = 0.01
MW-02		136.19	9.70	126.49	
MW-03		135.62	10.10	125.52	
MW-04		135.10	9.58	125.52	
MW-05		135.23	8.92	126.31	
MW-06		135.37	9.05	126.32	
MW-01	09/13/04	135.93	9.47	126.46	Northwesterly i = 0.01
MW-02		136.19	10.51	125.68	
MW-03		135.62	11.11	124.51	
MW-04		135.10	9.50	125.60	
MW-05		135.23	9.51	125.72	
MW-06		135.37	9.81	125.56	

**Table 1: Groundwater Flow Direction and Gradient**  
**458 West College Avenue, Santa Rosa**

Well #	Date	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (ft.)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-01	01/06/05	135.93	4.62	131.31	Northerly i = 0.01
MW-02		136.19	5.19	131.00	
MW-03		135.62	4.92	130.70	
MW-04		135.10	6.72	128.38	
MW-05		135.23	4.79	130.44	
MW-06		135.37	4.40	130.97	
MW-01	03/14/05	135.93	5.55	130.38	Northerly i = 0.01
MW-02		136.19	6.54	129.65	
MW-03		135.62	6.73	128.89	
MW-04		135.10	7.91	127.19	
MW-05		135.23	6.02	129.21	
MW-06		135.37	5.53	129.84	
MW-01	05/11/05**	138.73	5.83	132.90	N-NE i = 0.01
MW-02		138.99	6.14	132.85	
MW-03		138.42	5.73	132.69	
MW-04		137.90	7.63	130.27	
MW-05		138.03	5.57	132.46	
MW-06		138.17	5.61	132.56	
MW-07		137.34	7.45	129.89	
MW-08		137.90	8.41	129.49	
MW-09		137.42	7.12	130.30	
MW-10		137.97	7.60	130.37	
MW-11		138.21	6.72	131.49	

**Table 1: Groundwater Flow Direction and Gradient**  
**458 West College Avenue, Santa Rosa**

Well #	Date	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (ft.)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-01	08/03/05	138.73	8.15	130.58	Northerly i = 0.007
MW-02		138.99	8.93	130.06	
MW-03		138.42	9.35	129.07	
MW-04		137.90	9.40	128.50	
MW-05		138.03	8.20	129.83	
MW-06		138.17	8.42	129.75	
MW-07		137.34	9.09	128.25	
MW-08		137.90	9.70	128.20	
MW-09		137.42	9.14	128.28	
MW-10		137.97	9.31	128.66	
MW-11		138.21	8.84	129.37	
MW-01	11/09/05	138.73	8.03	130.70	Northerly i = 0.008
MW-02		138.99	8.53	130.46	
MW-03		138.42	8.71	129.71	
MW-04		137.90	8.86	129.04	
MW-05		138.03	7.79	130.24	
MW-06		138.17	8.11	130.06	
MW-07		137.34	8.69	128.65	
MW-08		137.90	9.21	128.69	
MW-09		137.42	8.54	128.88	
MW-10		137.97	8.82	129.15	
MW-11		138.21	8.38	129.83	

\* Surveyed to msl on September 2, 2003 under the direction of a licensed land surveyor.

\*\* MW-07 through MW-11 were surveyed to msl on July 6, 2005 under the direction of a licensed land surveyor.

MW-01 through MW-06 were surveyed to a different datum than MW-07 through MW-11. Subsequently, revised groundwater elevations and groundwater flow direction for the May 2005 monitoring event were performed (changes reflected herein).

**Table 2: Groundwater Analytical Results**  
**458 West College Avenue, Santa Rosa**

**Table 2: Groundwater Analytical Results**  
**458 West College Avenue, Santa Rosa**

ID	Date	Gasoline Components													Non-Gasoline Components								
		TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-dichloroethane	Methyl tert butyl ether	sec-butylbenzene	isopropylbenzene	naphthalene	n-butylbenzene	n-propylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	tert-butylbenzene	p-isopropyltoluene	chlorobenzene	1, 4-dichlorobenzene	1,2-dichlorobenzene	1, 3 dichlorobenzene	1,2,4 trichlorobenzene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-03	08/28/03	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	12/08/03	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	03/09/04	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	06/23/04	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	09/13/04	<50	NA	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	01/06/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	03/14/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	05/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	08/03/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	08/28/03	<b>300</b>	<b>150*</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.9</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.8</b>	<1.0	<b>1.6</b>	<1.0	<1.0	<1.0	<1.0
MW-04	12/08/03	<b>270</b>	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.4</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.0</b>	<1.0	<b>3.5</b>	<1.0	<1.0	<1.0	<1.0
	03/09/04	<b>180</b>	<b>100*</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.2</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.7</b>	<1.0	<b>1.0</b>	<1.0	<1.0	<1.0	<1.0
	06/23/04	<b>220</b>	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.6</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.3</b>	<1.0	<b>12</b>	<1.0	1.0	<1.0	<1.0
	09/13/04	<50	NA	<0.5	<0.5	<0.5	<1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.1</b>	<1.0	<1.0	<1.0	<1.0
	01/06/05	<b>93</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	03/14/05	<b>440</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.3</b>	<b>3.3</b>	<1.0	<1.0	<b>1.6</b>	<1.0	<1.0	<1.0	<b>3.1</b>	<1.0	<b>3.3</b>	<1.0	<1.0	<1.0	<1.0
	05/11/05	<b>360</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>3.1</b>	<1.0	<1.0	<b>1.4</b>	<1.0	<1.0	<1.0	<b>3.0</b>	<1.0	<b>3.1</b>	<1.0	<1.0	<1.0	<1.0
	08/03/05	<b>160</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.5</b>	<1.0	<b>14</b>	<b>1.1</b>	<b>1.4</b>	<1.0	<1.0
	11/09/05	<b>71</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.7</b>	<1.0	<1.0	<1.0	<1.0

**Table 2: Groundwater Analytical Results**  
**458 West College Avenue, Santa Rosa**

**Table 2: Groundwater Analytical Results**  
**458 West College Avenue, Santa Rosa**

ID	Date	Gasoline Components													Non-Gasoline Components								
		TPH-g	TPH-d	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-dichloroethane	Methyl tert butyl ether	sec-butylbenzene	isopropylbenzene	naphthalene	n-butylbenzene	n-propylbenzene	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	tert-butylbenzene	p-isopropyltoluene	chlorobenzene	1, 4-dichlorobenzene	1,2-dichlorobenzene	1, 3 dichlorobenzene	1,2,4 trichlorobenzene
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
MW-07	05/11/05	<b>220</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.1</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.0</b>	<1.0	<b>10</b>	<1.0	<1.0	<1.0	
	08/03/05	<b>71</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>3.6</b>	<1.0	<1.0	<1.0	<1.0	<1.0	
	11/09/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-08	05/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	08/03/05	<b>90</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>5.8</b>	<b>1.0</b>	<b>1.1</b>	<1.0	<1.0	<1.0	
	11/09/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-09	05/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<b>12</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>28</b>	<b>13</b>	<b>40</b>	<b>2.5</b>	<1.0
	08/03/05	<b>340</b>	NA	<b>2.3</b>	<1.0	<1.0	<1.0	<1.0	<b>8.5</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.7</b>	<1.0	<b>210</b>	<b>53</b>	<b>190</b>	<b>12</b>	<1.0
	11/09/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<b>6.1</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>250</b>	<b>65</b>	<b>220</b>	<b>15</b>	<1.0
MW-10	05/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.5</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.2</b>	<1.0	<b>90</b>	<b>5.0</b>	<b>8.0</b>	<1.0	<1.0
	08/03/05	<b>140</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<b>1.0</b>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.1</b>	<1.0	<b>78</b>	<b>5.0</b>	<b>6.8</b>	<1.0	<1.0
	11/09/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>37</b>	<b>3.1</b>	<b>3.4</b>	<1.0	<1.0
MW-11	05/11/05	<b>330</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>3.4</b>	<1.0	<1.0	<1.0	<1.0	<1.0	
	08/03/05	<b>170</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.4</b>	<1.0	<1.0	<1.0	<1.0	<1.0	
	11/09/05	<b>280</b>	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<b>2.1</b>	<1.0	<1.0	<1.0	<1.0	<1.0	

\* The sample chromatogram does not exhibit a characteristic pattern of diesel. Higher boiling points of weathered gasoline are present.

Note: MW-01 through MW-03 have been removed from the quarterly sampling program, effective 4th quarter 2005.

## **Appendices**

## **Appendix A**

### **Well Purge Records, 4<sup>th</sup> Quarter 2005**

# **SCS ENGINEERS**

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-04

# SCS ENGINEERS

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-05

# **SCS ENGINEERS**

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-06

# SCS ENGINEERS

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-07

# SCS ENGINEERS

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-08

# **SCS ENGINEERS**

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-09

# **SCS ENGINEERS**

## **WELL PURGE RECORD**

2005 - 4th Quarter

**WELL NUMBER**

MW-10

# **SCS ENGINEERS**

## **WELL PURGE RECORD**

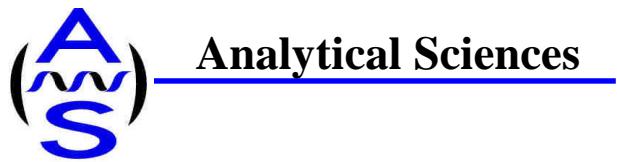
2005 - 4th Quarter

**WELL NUMBER**

MW-11

## **Appendix B**

**Analytical Sciences Report #5111003, dated November 28, 2005**



## Analytical Sciences

November 28, 2005

Scott Graham  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa, CA 95403

Dear Scott,

Enclosed you will find Analytical Sciences' final report 5111003 for your Nations Rent project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

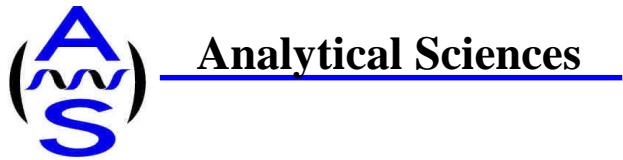
Sincerely,

Analytical Sciences

A handwritten signature in blue ink that reads "Mark A. Valentini". It is written in a cursive style with a long, sweeping 'M' and 'A'.

Mark A. Valentini, Ph.D.

Laboratory Director



Analytical Sciences

Report Date: November 28, 2005

## Laboratory Report

Scott Graham  
SCS Engineers  
3645 Westwind Blvd  
Santa Rosa, CA 95403

Project Name: **Nations Rent** **01203354.00**  
Lab Project: **5111003**

This 24 page report of analytical data has been reviewed and approved for release.

A handwritten signature in blue ink that reads "Mark A. Valentini".

---

Mark A. Valentini, Ph.D.  
Laboratory Director



## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-01	<b>MW-04</b>	Gasoline	71	50

Date Sampled:	11/09/05	Date Analyzed:	11/15/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-02	<b>MW-05</b>	Gasoline	870	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-03	<b>MW-06</b>	Gasoline	ND	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-04	<b>MW-07</b>	Gasoline	ND	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	



## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-05	<b>MW-08</b>	Gasoline	ND	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-06	<b>MW-09</b>	Gasoline	ND CS	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-07	<b>MW-10</b>	Gasoline	ND CS	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	

## TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-08	<b>MW-11</b>	Gasoline	280	50

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000315
Date Received:	11/10/05	Method:	EPA 8015	



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-01	MW-04	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	1.7	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	ND	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-01	MW-04	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	20.9	104	70-130	
Toluene-d8	21.4	107	70-130	
4-Bromofluorobenzene	19.1	96	70-130	

Date Sampled: 11/09/05      Date Analyzed: 11/11/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-02	MW-05	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	3.5	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	1.7	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	5.7	1.0
		m,p-Xylene	1.2	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	17	1.0
		1,2,3-Trichloropropene	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	30	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	4.1	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	3.5	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-02	<b>MW-05</b>	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	2.2	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	1.4	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates		Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		21.2	106	70-130
Toluene-d8		21.5	108	70-130
4-Bromofluorobenzene		19.7	98	70-130

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000308
Date Received:	11/10/05	Method:	EPA 8260B	



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-03	<b>MW-06</b>	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	ND	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-03	<b>MW-06</b>	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	5.4	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	20.9	104	70-130	
Toluene-d8	21.5	108	70-130	
4-Bromofluorobenzene	19.4	97	70-130	

Date Sampled:	11/09/05	Date Analyzed:	11/11/05	QC Batch: B000308
Date Received:	11/10/05	Method:	EPA 8260B	



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-04	MW-07	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	ND	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-04	MW-07	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	21.2	106	70-130	
Toluene-d8	21.4	107	70-130	
4-Bromofluorobenzene	19.2	96	70-130	

Date Sampled: 11/09/05      Date Analyzed: 11/11/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-05	<b>MW-08</b>	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	ND	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-05	<b>MW-08</b>	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates		Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		21.3	106	70-130
Toluene-d8		21.6	108	70-130
4-Bromofluorobenzene		19.1	96	70-130

Date Sampled: 11/09/05      Date Analyzed: 11/12/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-06	<b>MW-09</b>	Dichlorodifluoromethane	ND	5.0
		Chloromethane	ND	5.0
		Vinyl chloride	ND	5.0
		Chloroethane (CE)	ND	5.0
		Bromomethane	ND	5.0
		Trichlorofluoromethane	ND	5.0
		1,1-Dichloroethene (1,1-DCE)	ND	5.0
		Methylene Chloride	ND	5.0
		trans-1,2-Dichloroethene	ND	5.0
		1,1-Dichloroethane (1,1-DCA)	ND	5.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	5.0
		2,2-Dichloropropane	ND	5.0
		Chloroform (THM1)	ND	5.0
		Bromochloromethane	ND	5.0
		1,1,1-Trichloroethane (TCA)	ND	5.0
		1,2-Dichloroethane (EDC)	ND	5.0
		1,1-Dichloropropene	ND	5.0
		Carbon Tetrachloride	ND	5.0
		Benzene	ND	5.0
		Trichloroethene (TCE)	ND	5.0
		1,2-Dichloropropane (DCP)	ND	5.0
		Dibromomethane	ND	5.0
		Bromodichloromethane (THM2)	ND	5.0
		cis-1,3-Dichloropropene	ND	5.0
		Toluene	ND	5.0
		1,1,2-Trichloroethane	ND	5.0
		1,3-Dichloropropane	ND	5.0
		Dibromochloromethane (THM3)	ND	5.0
		Tetrachloroethene (PCE)	ND	5.0
		1,2-Dibromoethane (EDB)	ND	5.0
		Chlorobenzene	250	5.0
		1,1,1,2-Tetrachloroethane	ND	5.0
		Ethylbenzene	ND	5.0
		m,p-Xylene	ND	5.0
		Styrene	ND	5.0
		o-Xylene	ND	5.0
		Bromoform (THM4)	ND	5.0
		1,1,2,2-Tetrachloroethane	ND	5.0
		Isopropylbenzene	ND	5.0
		1,2,3-Trichloropropane	ND	5.0
		Bromobenzene	ND	5.0
		n-Propyl Benzene	ND	5.0
		2-Chlorotoluene	ND	5.0
		4-Chlorotoluene	ND	5.0
		1,3,5-Trimethylbenzene	ND	5.0
		tert-Butylbenzene	ND	5.0
		1,2,4-Trimethylbenzene	ND	5.0
		sec-Butylbenzene	ND	5.0
		1,3-Dichlorobenzene	15	5.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-06	MW-09	1,4-Dichlorobenzene	65	5.0
		1,2-Dichlorobenzene	220	5.0
		p-Isopropyltoluene	ND	5.0
		n-Butylbenzene	ND	5.0
		1,2-Dibromo-3-chloropropane	ND	5.0
		1,2,4-Trichlorobenzene	ND	5.0
		Naphthalene	ND	5.0
		Hexachlorobutadiene	ND	5.0
		1,2,3-Trichlorobenzene	ND	5.0
		Tertiary Butyl Alcohol (TBA)	ND	120
		Methyl tert-Butyl Ether (MTBE)	6.1	5.0
		Di-isopropyl Ether (DIPE)	ND	5.0
		Ethyl tert-Butyl Ether (ETBE)	ND	5.0
		Tert-Amyl Methyl Ether (TAME)	ND	5.0
Surrogates		Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		21.0	105	70-130
Toluene-d8		21.5	108	70-130
4-Bromofluorobenzene		18.8	94	70-130

Date Sampled: 11/09/05      Date Analyzed: 11/12/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-07	MW-10	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	37	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	ND	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-07	MW-10	1,4-Dichlorobenzene	3.1	1.0
		1,2-Dichlorobenzene	3.4	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates		Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		21.2	106	70-130
Toluene-d8		21.6	108	70-130
4-Bromofluorobenzene		19.0	95	70-130

Date Sampled: 11/09/05      Date Analyzed: 11/12/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-08	MW-11	Dichlorodifluoromethane	ND	1.0
		Chloromethane	ND	1.0
		Vinyl chloride	ND	1.0
		Chloroethane (CE)	ND	1.0
		Bromomethane	ND	1.0
		Trichlorofluoromethane	ND	1.0
		1,1-Dichloroethene (1,1-DCE)	ND	1.0
		Methylene Chloride	ND	1.0
		trans-1,2-Dichloroethene	ND	1.0
		1,1-Dichloroethane (1,1-DCA)	ND	1.0
		cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0
		2,2-Dichloropropane	ND	1.0
		Chloroform (THM1)	ND	1.0
		Bromochloromethane	ND	1.0
		1,1,1-Trichloroethane (TCA)	ND	1.0
		1,2-Dichloroethane (EDC)	ND	1.0
		1,1-Dichloropropene	ND	1.0
		Carbon Tetrachloride	ND	1.0
		Benzene	ND	1.0
		Trichloroethene (TCE)	ND	1.0
		1,2-Dichloropropane (DCP)	ND	1.0
		Dibromomethane	ND	1.0
		Bromodichloromethane (THM2)	ND	1.0
		cis-1,3-Dichloropropene	ND	1.0
		Toluene	ND	1.0
		1,1,2-Trichloroethane	ND	1.0
		1,3-Dichloropropane	ND	1.0
		Dibromochloromethane (THM3)	ND	1.0
		Tetrachloroethene (PCE)	ND	1.0
		1,2-Dibromoethane (EDB)	ND	1.0
		Chlorobenzene	ND	1.0
		1,1,1,2-Tetrachloroethane	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		Styrene	ND	1.0
		o-Xylene	ND	1.0
		Bromoform (THM4)	ND	1.0
		1,1,2,2-Tetrachloroethane	ND	1.0
		Isopropylbenzene	ND	1.0
		1,2,3-Trichloropropane	ND	1.0
		Bromobenzene	ND	1.0
		n-Propyl Benzene	ND	1.0
		2-Chlorotoluene	ND	1.0
		4-Chlorotoluene	ND	1.0
		1,3,5-Trimethylbenzene	ND	1.0
		tert-Butylbenzene	2.1	1.0
		1,2,4-Trimethylbenzene	ND	1.0
		sec-Butylbenzene	ND	1.0
		1,3-Dichlorobenzene	ND	1.0



## Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5111003-08	MW-11	1,4-Dichlorobenzene	ND	1.0
		1,2-Dichlorobenzene	ND	1.0
		p-Isopropyltoluene	ND	1.0
		n-Butylbenzene	ND	1.0
		1,2-Dibromo-3-chloropropane	ND	1.0
		1,2,4-Trichlorobenzene	ND	1.0
		Naphthalene	ND	1.0
		Hexachlorobutadiene	ND	1.0
		1,2,3-Trichlorobenzene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates		Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane		21.0	105	70-130
Toluene-d8		21.4	107	70-130
4-Bromofluorobenzene		19.4	97	70-130

Date Sampled: 11/09/05      Date Analyzed: 11/11/05      QC Batch: B000308

Date Received: 11/10/05      Method: EPA 8260B



## Quality Assurance Report

### TPH Gasoline in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B000315 - EPA 5030 GC

**Blank (B000315-BLK1)** Prepared & Analyzed: 11/11/05

Gasoline	ND	50	ug/L
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**Matrix Spike (B000315-MS1)** Source: 5111003-03 Prepared & Analyzed: 11/11/05

Benzene	9.04	0.50	ug/L	10.0	ND	90	70-130
Toluene	9.76	0.50	ug/L	10.0	ND	98	70-130
Ethylbenzene	9.96	0.50	ug/L	10.0	ND	100	70-130
Xylenes	30.6	1.5	ug/L	30.0	ND	102	70-130

**Matrix Spike Dup (B000315-MSD1)** Source: 5111003-03 Prepared & Analyzed: 11/11/05

Benzene	9.25	0.50	ug/L	10.0	ND	92	70-130	2	20
Toluene	9.87	0.50	ug/L	10.0	ND	99	70-130	1	20
Ethylbenzene	10.1	0.50	ug/L	10.0	ND	101	70-130	1	20
Xylenes	30.9	1.5	ug/L	30.0	ND	103	70-130	1	20



## Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B000308 - EPA 5030 GC/MS

**Blank (B000308-BLK1)** Prepared & Analyzed: 11/09/05

Dichlorodifluoromethane	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Chloroethane (CE)	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,1-Dichloroethene (1,1-DCE)	ND	1.0	ug/L
Methylene Chloride	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethane (1,1-DCA)	ND	1.0	ug/L
cis-1,2-Dichloroethene (c1,2-DCE)	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
Chloroform (THM1)	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
1,1,1-Trichloroethane (TCA)	ND	1.0	ug/L
1,2-Dichloroethane (EDC)	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Carbon Tetrachloride	ND	1.0	ug/L
Benzene	ND	1.0	ug/L
Trichloroethene (TCE)	ND	1.0	ug/L
1,2-Dichloropropane (DCP)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
Bromodichloromethane (THM2)	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
Dibromochloromethane (THM3)	ND	1.0	ug/L
Tetrachloroethene (PCE)	ND	1.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
m,p-Xylene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
Bromoform (THM4)	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
n-Propyl Benzene	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L



## Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B000308 - EPA 5030 GC/MS

Blank (B000308-BLK1)	Prepared & Analyzed: 11/09/05						
4-Chlorotoluene	ND	1.0	ug/L				
1,3,5-Trimethylbenzene	ND	1.0	ug/L				
tert-Butylbenzene	ND	1.0	ug/L				
1,2,4-Trimethylbenzene	ND	1.0	ug/L				
sec-Butylbenzene	ND	1.0	ug/L				
1,3-Dichlorobenzene	ND	1.0	ug/L				
1,4-Dichlorobenzene	ND	1.0	ug/L				
1,2-Dichlorobenzene	ND	1.0	ug/L				
p-Isopropyltoluene	ND	1.0	ug/L				
n-Butylbenzene	ND	1.0	ug/L				
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L				
1,2,4-Trichlorobenzene	ND	1.0	ug/L				
Naphthalene	ND	1.0	ug/L				
Hexachlorobutadiene	ND	1.0	ug/L				
1,2,3-Trichlorobenzene	ND	1.0	ug/L				
Tertiary Butyl Alcohol (TBA)	ND	25	ug/L				
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L				
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L				
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L				
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L				

Surrogate: Dibromofluoromethane	20.0	ug/L	20.0	100	70-130
Surrogate: Toluene-d8	21.4	ug/L	20.0	107	70-130
Surrogate: 4-Bromofluorobenzene	20.6	ug/L	20.0	103	70-130

Matrix Spike (B000308-MS1)	Source: 5110906-02	Prepared: 11/09/05		Analyzed: 11/11/05		
1,1-Dichloroethene (1,1-DCE)	18.9	1.0	ug/L	25.0	ND	76 70-130
Benzene	21.4	1.0	ug/L	25.0	0.65	83 70-130
Trichloroethene (TCE)	21.6	1.0	ug/L	25.0	ND	86 70-130
Toluene	22.6	1.0	ug/L	25.0	0.71	88 70-130
Chlorobenzene	21.7	1.0	ug/L	25.0	ND	87 70-130

Surrogate: Dibromofluoromethane	18.5	ug/L	20.0	92	70-130
Surrogate: Toluene-d8	21.2	ug/L	20.0	106	70-130
Surrogate: 4-Bromofluorobenzene	20.3	ug/L	20.0	102	70-130



## Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch B000308 - EPA 5030 GC/MS

Matrix Spike Dup (B000308-MSD1)	Source: 5110906-02		Prepared & Analyzed: 11/09/05						
1,1-Dichloroethene (1,1-DCE)	19.1	1.0	ug/L	25.0	ND	76	70-130	0	20
Benzene	20.7	1.0	ug/L	25.0	0.65	80	70-130	4	20
Trichloroethene (TCE)	20.6	1.0	ug/L	25.0	ND	82	70-130	5	20
Toluene	22.0	1.0	ug/L	25.0	0.71	85	70-130	3	20
Chlorobenzene	21.2	1.0	ug/L	25.0	ND	85	70-130	2	20
<i>Surrogate: Dibromofluoromethane</i>	<i>19.2</i>		<i>ug/L</i>	<i>20.0</i>		<i>96</i>	<i>70-130</i>		
<i>Surrogate: Toluene-d8</i>	<i>20.6</i>		<i>ug/L</i>	<i>20.0</i>		<i>103</i>	<i>70-130</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>20.1</i>		<i>ug/L</i>	<i>20.0</i>		<i>100</i>	<i>70-130</i>		



## Notes and Definitions

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CS	Chromatographic peaks known to be chlorinated solvents were not included in the TPH Gasoline result.
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference

